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W&B Ref. No. : INF 2268-US
Atty. Dkt. No. INFN/WB0072

REMARKS

This is intended as a full and complete response to the Office Action dated September 15, 2005, having a shortened statutory period for response set to expire on December 15, 2005. Please reconsider the claims pending in the application for reasons discussed below.

Claims 1-28 are pending in the application. Claims 1-28 remain pending following entry of this response.

Claim Rejections - 35 U.S.C. § 102

Claims 1-3 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by *Schnabel* (US 6788087). Applicants respectfully traverse this rejection.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990). In this case, *Schnabel* does not disclose "each and every element as set forth in the claim", as described below.

With respect to claim 1, and the claims that depend therefrom, *Schnabel* does not disclose a switching device to selectively couple the test terminal to the internal voltage line during testing of the first circuit. The Examiner argues that *Schnabel* discloses a switching device to selectively couple the test terminal to the internal voltage line during testing of the first circuit at Figures 1-2, Items 11, 12, and 8. However, the cited passage is in fact directed to a fuse device 11 which maintains a connection between a pad 5, signal line 4, and input of an inverter 13 of a latch 12 during testing. Col. 4, Line 66 – Col. 5, Line 2. The fuse is used to isolate the signal line after operation of the test circuit in a test procedure. Col. 2, Lines 28-33; Col. 5, Lines 2-7. Accordingly, before and during the test procedure, a constant electrical connection is maintained by the fuse between the pad 5, signal line 4, and latch 12, without any

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switching or selection being utilized. Col. 4, Line 66 – Col. 5, Line 2. In contrast, the pending claims describe *a switching device which selectively couples* a test terminal to an internal voltage line during testing of the first circuit. Accordingly, Applicants respectfully submit that the cited sections of *Schnabel* do not teach each and every element as set forth in the claim. Withdrawal of the rejection is respectfully requested.

With respect to claim 23, *Schnabel* does not disclose activating a first switch to couple the test terminal to the internal voltage line after application of the activation signal, whereby the internal voltage line is provided with external power for the testing. As described above, *Schnabel* describes a constant electrical connection maintained by the fuse between the pad 5, signal line 4, and latch 12 without utilizing a switch. Col. 4, Line 66 – Col. 5, Line 2. Indeed, the fuse device 11 is only utilized *after testing*, where an isolating current may be impressed into the fuse device 11. Col. 5, Lines 2-7. Thus, *Schnabel* does not disclose activating a first switch to couple the test terminal to the internal voltage line after application of the activation signal, whereby the internal voltage line is provided with external power for the testing. Withdrawal of the rejection is respectfully requested.

Claim Rejections - 35 U.S.C. § 103

Claims 7-11, 12, 16-19, 23-25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Van Brunt* (US 4,357,703) in view of *Tada et al.* (US 4,801,871, hereinafter *Tada*). Applicants respectfully traverse this rejection.

The Examiner bears the initial burden of establishing a *prima facie* case of obviousness. See MPEP § 2142. To establish a *prima facie* case of obviousness three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP § 2143. The present rejection fails to establish at least the third criteria, as described below.

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The pending claims describe a test terminal coupled to the test circuit in order to provide an activation signal activating the test circuit to perform a test function and a switching device coupled to an output of the test circuit and configured to selectively couple the test terminal to the internal voltage line in response to a switching signal from the output. The Examiner states that *Van Brunt* describes a test circuit in Figure 1, items 40, 20, and 22, a test terminal (item 21), and a switching device 23 coupled to an output of the test circuit and configured to selectively couple (using item 40) the test terminal to the internal voltage line (of item 11) in response to a switching signal from the output. However, the cited portions are in fact directed to a test data input 21 which only acts as a data input to a control shift register 40 (See Figure 1) and which is not coupled to an internal voltage line (e.g., of item 11) as asserted by the Examiner.

Van Brunt is directed to a test system for large scale integrated circuits. See Title. Serialized test data may be passed into the logic module in *Van Brunt* via test data input pin 21. See Col. 4, Lines 1-2. The control shift register 40 is loaded serially by the test data input to the test data pin 21. Col. 4, Lines 30-32. The test system may be used to monitor normal system operation. Col. 4, Lines 43-46. During the test, the transmission gates 23 are closed, allowing input signal lines 12 to be sampled via input shift register 20. See Col. 4, Lines 51-55.

From this description, *Van Brunt* does not teach the limitations asserted by the Examiner for at least three reasons. First, in *Van Brunt*, the test data pin 21 is utilized only as an input into the control shift register 40 and is not selectively coupled to an internal voltage line as asserted by the Examiner. Col. 4, Lines 30-32. Second, the transmission gates 23 are used to connect input signal lines 12 to an input shift register 20, and not to a test terminal as asserted by the Examiner. See Col. 4, Lines 51-55. Third, the transmission gates 23 are used to connect input signal lines 12 (e.g., external inputs to the device being tested), not to connect an internal voltage line as asserted by the Examiner. See Col. 4, Lines 51-55. Accordingly, the cited references do not teach or suggest all the claim limitations as asserted by the Examiner. Withdrawal of the rejection is respectfully requested.

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Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Schnabel* as applied to claim 1 above, and further in view of *Horiguchi et al.* (US 5,347,492, hereinafter *Horiguchi*). Applicants respectfully submit that the rejection over *Schnabel* with respect to claim 1 has been overcome as described above. Accordingly, withdrawal of the rejection is respectfully requested.

Claims 13 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Van Brunt* and *Tada* as applied to claims 7 and 16 above, and further in view of *Horiguchi*. Applicants respectfully submit that the rejection of the claims with respect to *Van Brunt* and *Tada* has been overcome as described above. Accordingly, withdrawal of the rejection is respectfully requested.

Allowable Subject Matter

Claims 5-6, 14-15, 21-22, 26 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants acknowledge the allowable subject matter. However, Applicants submit that the rejection of the base claims has been overcome as described above. Accordingly, withdrawal of the objections is respectfully requested.

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Conclusion

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to the Applicants' disclosure than the primary references cited in the office action. Therefore, Applicants believe that a detailed discussion of the secondary references is not necessary for a full and complete response to this office action.

Having addressed all issues set out in the office action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



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